

**GREATER YELLOWSTONE INTERAGENCY BRUCELLOSIS COMMITTEE**  
**MEETING MINUTES**  
**THE WORT HOTEL**  
**JACKSON, WYOMING**  
**MAY 19, 1999**

**Executive Committee Present:**

- John Baughman, Wyoming Game and Fish Department, Cheyenne, WY
- Bill Daniels, Bureau of Land Management, Cheyenne, WY
- Arnold Gertonson, Montana Department of Livestock, Helena, MT
- Rube Harrington, USDA, APHIS, VS, Central Region, Arlington, TX
- Bob Hillman, Idaho State Department of Agriculture, Boise, ID
- Dan Huff, National Park Service, Intermountain Region, Denver, CO
- Steve Lewis, Montana Department of Fish, Wildlife & Parks, Bozeman, MT
- Jim Logan, Wyoming Livestock Board, Shoshoni, WY
- J. Larry Ludke, USGS, Biological Resources Div., Denver, CO
- Terry T. Terrell, U.S. Fish and Wildlife Service, Region 6, Denver, CO
- Bill Noblitt, U.S. Forest Service/Bridger-Teton National Forest, Jackson, WY
- Steven Huffaker
- Carole Bolin, ARS

**Staff:**

- Danna Kinsey, National Park Service, Denver, CO
- Becky Russell, Wyoming Game & Fish Dept., Laramie, WY

**Attendees:**

- Tom Bills, USFS, Bridger-Teton National Forest, Jackson, WY
- Diane Katzenberger, US Fish & Wildlife Service, Office of External Affairs, Denver, CO
- Jason Campbell, Montana Stockgrowers Assoc., Helena, MT
- Jon Catton, Greater Yellowstone Coalition, Bozeman, MT
- John Chatburn, Idaho Dept. of Agriculture, Boise, ID
- Larry Dole, BLM, Cheyenne, WY
- Lloyd Dorsey, Wyoming Wildlife Federation, Jackson, WY
- Jeff Gearino, Casper Star-Tribune, Green River, WY
- Del Hensel, National Bison Association, Commerce City, CO
- D. J. Schubert, Schubert & Assoc., Glendale, AZ
- Jeanne-Marie Souvigney, Greater Yellowstone Coalition, Bozeman, MT
- Art Reese, Wyoming Game & Fish Department, Cheyenne, WY
- Keith Aune, Montana Dept. of Fish, Wildlife & Parks, Bozeman, MT
- Wayne Brewster, National Park Service, Yellowstone National Park, WY
- Wilber Clark, APHIS Veterinary Services, Helena, MT
- Donald S. Davis, Texas A & M Dept. of Vet. Pathobiology, College Station, TX
- Philip Elzer, LSU, Dept. of Veterinary Science, Baton Rouge, LA

- Cindy Gaborick, USDA, APHIS, Veterinary Services, Boise, ID
- Peter Gogan, BRD/USGS, Bozeman, MT
- John Gross, NREL, Colorado State University, Fort Collins, CO
- Bruce Lubow, Colorado State University, Fort Collins, CO
- D. Owen James, Montana Department of Livestock, Helena, MT
- Terry Kreeger, Wyoming Game & Fish Department, Wheatland, WY
- Tom Linfield, Montana Department of Livestock, Helena, MT
- Steve Iopst, Grand Teton National Park, Moose, WY
- Mike Finley, Yellowstone National Park, WY
- Jack Neckels, Grand Teton National Park, Moose, WY
- Mike Philo, USDA/APHIS/VS, Bozeman, MT
- Valerie Ragan, USDA/APHIS/VS, Riverdale, MD
- Barry Reiswig, National Elk Refuge, Jackson, WY
- Jack Rhyan, National Wildlife Research Center, APHIS, VS, Fort Collins, CO
- Thomas Roffe, USGS/BRD National Wildlife Health Center, Bozeman, MT
- Bob Schiller, Grand Teton National Park, Moose, WY
- Michael Scott, Greater Yellowstone Coalition, Bozeman, MT
- Scott Smith, Wyoming Game & Fish Department Field Operations, Pinedale, WY
- Tom Thorne, Wyoming Game & Fish Dept., Cheyenne, WY
- Richard Weisbrod, USGS, Denver, CO
- Doug Woody, APHIS & Wyoming Livestock Board, Afton, WY
- Scott Wyban, KIFI-TV, Idaho Falls, ID

The Special Session with the Secretaries and Governors was called to order at 9:10 a.m.

Chairman Dan Huff welcomed the attending Assistant Secretary and the three Governors; Don Barry from the Department of the Interior, Gov. Geringer of Wyoming, Gov. Kempthorne of Idaho and Gov. Racicot of Montana. Secretary of the Department of Agriculture was unable to attend. Chairman Huff noted that this meeting was called to get the Greater Yellowstone Interagency Brucellosis Committee signatories together to discuss the future including the mission, goals and constraints. The meeting agenda called for presentations by Committee members, then discussion with the signatories in order to address the direction the Committee should take. Introductions of the GYIBC Executive Committee followed.

Gov. Geringer stated that the committee needs to continue to strive towards the goal of the eradication of brucellosis. Elimination is necessary because Brucellosis is a health hazard to humans. The Committee needs to focus on the result and it needs a recommitment from us regarding direction. The committee is 5 years old, and includes two federal agencies and several agencies of the three states that have jurisdiction in the Greater Yellowstone Area, so I look forward to a good meeting. The GYIBC can call on us to help resolve issues too, although we may not know the answer.

Chairman Huff added that he had three questions and the group could use direction and advice on how to handle these issues.

1. Is the approach of the GYIBC working or should we do it differently?
2. How do we handle federal agency and state management constraints?

3. Also, the process will cost money and time for member federal agencies and states, how will they be supported?

Art Reese gave a presentation on the history of the GYIBC.

Chairman Huff introduced the next presenters; Jack Rhyan, Diane Katzenberger and Tom Bills to discuss GYIBC accomplishments and its outreach through the use of a WebPage.

Diane Katzenberger and Tom Bills are members of the Information and Education Subcommittee whose primary task includes public education about the GYIBC and Brucellosis. Tom Bills maintains the GYIBC web page, which makes available the goal, mission, and objectives of the GYIBC. He demonstrated the page and read the goal, the mission, and the 10 objectives including the maintenance of viable wildlife populations and the brucellosis free status for member states. Tom stated that the main objective of web page is for education, and it includes a biography of each Executive Committee member, the history, a calendar of meetings, ongoing research, published documents and links to related sites.

Jack Rhyan, Chair of the Technical Subcommittee, spoke to the group about the accomplishments of the GYIBC. He noted that the scientists on the subcommittee have been involved with many research projects and their findings have been useful to advise the Executive Committee with recommendations, these recommendations have helped with herd unit management action plans, quarantines and other publications. The subcommittee developed a statement that winter feeding of wildlife was contrary to the mission of the GYIBC (1995), a white paper on interspecies transmission of brucellosis. They have developed a protocol for vaccines including what constitutes safe and efficacious, and this week the subcommittee reviewed research on the use of RB51 in bison. Recent and current research includes the risk of transmission from bull bison to cattle. Some of the data results were extrapolated from cattle studies, as research on bison is not sufficient. Also, comparing and contrasting the studies standards for scientific research developed the protocol for bison studies. The “white paper” was based on group consensus, details were itemized and the resulting studies will be scientifically sound. Future studies will produce tangible products and ensure that agencies are not duplicating research; instead researchers will be finding the holes that need to be filled.

Governor Geringer noted that it was important to recognize key milestones in Brucellosis research and management. Chairman Huff mentioned that the GYIBC has worked for consensus to guarantee the success of field studies and for implementing action plans. However, there are 120,000 elk in 27 herd units and 4,000 bison in the GYA and it is difficult to gain consensus and progress forward. We still need to identify control methods, including hunting opportunities, although hunting can not be allowed in GTNP without additional NEPA compliance, this process will continue to be costly. There has never been a plan approved, the Yellowstone/Montana EIS will be the first to be completed. The group provides agency cooperation, research and gathers information; this is the approach that the GYIBC has taken over the last four years. Is that our role? Are we stuck on being an information organization? The major constraints to the GYIBC are the attempt to eradicate brucellosis without unacceptable consequences to wildlife or the cattle industry. Perhaps there is another way to deal with brucellosis and not damage a state’s trade industry or economic well being. Perhaps monitor herds and wildlife to reduce risk and not completely eradicate every brucella?

The costs of brucellosis management include \$5.6 million for research to develop defensible rationale and begin planning for all herd units. A management action plan is needed to work within the mission of all agencies involved and address issues such as the possible acquisition of

land, the future of feed grounds, jurisdiction on private lands, and many other issues. We did not bring you here to ask for money, since there is no rampant disease spreading and there have been no problems with state sanctions, there does not need to be any draconian efforts. The GYIBC member agencies and states can seek funds through current resources for the next 10 years. Governor Geringer responded by adding that requesting [67 million dollars]? sounds like funding geared at the eradication of brucellosis. It appears that there are a couple of approaches. You can eliminate the problem by demonstrating that there is not a problem or research can be aimed at eliminating the disease, which is more difficult to accomplish.

Chairman Huff asked that the floor be opened for discussion. Address the risk management approach to maintain state status as a reasonable direction given that eradication of the disease remains the goal. Solving the socio-economic problems associated with the presence of brucella in the GYA is really what we are charged to do. Bob Hillman responded that we are all saying the same thing, just with different words. We all want to control the disease so that there is no transmission to livestock, and no transmission beyond the borders of the GYA, and work to eradicate it from the GYA. By next year, the only brucella in the United States will be in the GYA; this fact will have implications beyond the GYA. If our focus is not on eradication we may be wasting time.

Chairman Huff followed by asking others for a discussion focused on future strategies. Governor Geringer mentioned his observations regarding the list of questions. He stated that there is value in the GYIBC, absolutely yes. We will be looking to the committee for recommendations on management actions, and to the authority of the group to move things forward. When the committee achieves consensus and advocates policy we will support you. Time is not on the side of those who are economically effected, the risk of transmission is a well known animal health issue, animal health officials work towards elimination while the USFWS will only accept a solution that is safe and efficacious. In this discussion, where do the states come in? As a group, identification of acceptable risk needs to occur, while if total elimination is the goal we need to have consensus and a threshold defined. It is unfortunate that we do not have Secretary Dunn here to address these issues for the Department of Agriculture.

Assistant Secretary Barry mentioned that the issue of brucellosis is a multi-headed nightmare because of the many points of view. What is needed is a common approach, not recognition of agency and state differences. Currently the Department of the Interior and APHIS have difficulty communicating. The issue needs to be kept in perspective with the development of short, mid and long-term goals, which address all the different parts of the problem. Currently 5.6 million dollars are needed for backlog research, and perhaps we need to accelerate that level of funding. On April 29, 1999 a budget for the next three years for Interior was developed using your priorities. Using the data to identify research that is missing creates a game plan for priority spending that can be developed for use in Washington. Currently, 550,000 dollars were spent in FY 99, while 750-850,000 dollars are earmarked for research in FY 2000. 2.1 million dollars for research on brucellosis in wildlife is needed. If elimination is the mid-term goal and eradication is the long term goal (10-15 years) we need to be realistic in what can be accomplished, then we can implement through funding. There is no other alternative to a forum like this, after two times in court, we realize that litigation is a poor way to handle agency and state differences, the GYIBC is a way to be a better partner with the states on this issue.

Governor Racicot followed by asking Chairman Huff what he thought were appropriate answers to the questions. Chairman Huff replied that members of the GYIBC executive committee and, to some degree, members of the technical subcommittee, couldn't be effective if they are not able to

openly communicate due to possible litigation. When member agencies sue each other it puts constraints on the effectiveness of the GYIBC. Governor Racicot answered that the issue is one of jurisdiction and authority. Each member agency will influence management actions and help determine long term goals.

Chairman Huff responded that members need to get the perspective of the signatories so that policy responses are not third hand for state and federal members. Governor Racicot stated that unanimity within an agency is difficult, particularly on the level of interagency agreements. Especially since there are different opinions within the disciplines, for example all of APHIS does not agree with Department of Interior policy, and it may be an inaccurate policy due to the understanding that there is no agreement within science fields. As a governor I can agree with state members, but cannot referee interagency squabbles. Chairman Huff remarked that the problem is the same in all the agencies, but we need to be able to work very closely together to develop clear objectives and goals. Yet with all the differences of opinion how can we develop action plans for 27 different herd units? Governor Racicot answered that these issues may be chores for the future.

Governor Kempthorne added that the GYIBC represents years of dedication, and we need to focus on what has been achieved. The web site contains the goals, objectives and the mission and addresses the issues. Some of which are from the first meeting of the GYIBC, brucellosis is not natural to wildlife, bison are an American icon, elk in Yellowstone also carry the bacteria, wildlife feed grounds are not natural, brucellosis will impact livestock if it is not eradicated, good scientific research is needed and all involved agencies need to come together to discuss such issues. We know what needs to be done, but it is open-ended. Perhaps we need to get the signatories to meet in a locked room until they can get to an agreement. The differences need to be resolved and a plan needs to be agreed to, no more talking is needed. We need to agree if vaccination is a good thing, by putting all concerns out on the table. Look at what has happened with the Yellowstone/Montana EIS, how many meetings occurred where everyone sat around and scratched their heads. They were all in the room with their attorneys, that is baloney, we need to set out basic principles and get the obstacles out of the way.

Don Barry added that one of the missions for the GYIBC is to coordinate ongoing brucellosis research in wildlife, the technical subcommittee does much of this work. Right now there is frustration with the pace of progress, however the need for communication and making wise choices is very important. We should not stampede into action and what action we do take should use the best information available. The National Academy of Sciences has recognized that we are still missing the tools to make sound decisions. Governor Kempthorne agreed that the current information base is integral to this discussion, and suggested that the GYIBC compile a list of information gaps then deal with the gaps. Governor Racicot also noted that research needs to be expanding, he encouraged the GYIBC to make recommendations. He asked 'why wait' if we have information to rely on, tell us if we are not heading in the right direction. As for the fear associated with legal difficulties, we need to eliminate those risks for you. We need to know how we can allow the GYIBC to be the authority on the issue of brucellosis management without discretion.

Governor Geringer mentioned that there are three areas for involvement; investigative, research contributions, and evaluation of management strategies. The role of the GYIBC should be persuasive relying on evidence, focus on research that is persuasive in itself. The CEQ report demonstrated that half of the work was a product of the courts managing the resources by effecting the decisions. Governor Racicot added that in reference to one of the management plans,

the Yellowstone/Montana EIS, the committee, as chartered, can make recommendations. All recommendations are addressed in the EIS.

Don Barry spoke regarding the side boards for the GYIBC. Based on the scope of work in the charter, the GYIBC does not usurp the various federal agency decisions and nothing that the GYIBC does can override management decisions. The group needs to proceed in a defined fashion, with committee efforts focused on reaching a consensus, while still being respectful of federal and state laws. Bill Daniels highlighted the constraints, which include a lack of a dedicated budget to cover salaries, reports, publications and administrative costs.

Governor Racicot responded that a first order of business includes his willingness to secure proper funding, which is not unattainable. Assistant Secretary Barry added that there needs to be further funding for other important tasks including public communication to help inform the public about the risk of transmission and risk management principles. The GYIBC needs to add to its mission a communication element. Governor Racicot asked that the groups work towards consensus, then give direction, and create priorities. He also asked what does the GYIBC want to become and eventually be. Will the group be the experts who develop the answers to the questions surrounding brucellosis and make recommendations? For example, the issue of vaccination, how can we address it ourselves, the GYIBC is the ideal setting to generate the answers that are needed to move forward, give us a plan, an agreement and we can get together in the near future to strategize on how to get funding. Governor Kempthorne seconded the proposal. Assistant Secretary Barry again reminded everyone to stay within the charter and authority given to the GYIBC through the MOU.

Governor Geringer requested a goal specific budget, not just time and materials. At that point the signatories can step in to get funding if governors and legislators know the cost in order to address a particular goal. Carole Bolin from the Department of Agriculture, ARS research arm added that she wanted to move forward as well, and added that they are taking direct action through research and are able to provide some answers. Bob Hillman commented that there needs to be clarification on how to develop the budget, and he agreed that additional research is needed, however he expressed frustration at how long the NEPA process takes. He also noted that the management plans for Yellowstone/Montana and the Jackson herd should be able to incorporate adaptive management strategies without 5 more years of research.

Governor Racicot acknowledged the timely questions posed by the GYIBC and requested that the group make a recommendation on how to move forward including a complete administrative budget and organizational structure and bring all the signatories back together again. Arnold Gertonson added that the organization needs funds, not only funds for actions, but specifically for informational and educational newsletters. Governor Geringer stated that he would cover the newsletters. Larry Ludke noted that we do have some funding, 3.5 million dollars put up by the NPS, USGS, etc., and we have priorities worked out, what we do as an organization is one of the highest priorities, but the priorities and budget do not reflect operational costs.

Assistant Secretary Barry reminded everyone that it would be a mistake to interpret what has been said advocates haste rather than good science; any actions cannot work without good science and a rational basis. Governor Kempthorne objected to what Don Barry said, there is no message of haste and the GYIBC should be commended for all the good research that has been accomplished so far. He suggested acceleration of ARS funding to support good science; currently they are working with 2 million. It would be good to get support and resolve this

problem and remove this disease from these borders. He added that with cooperation and spirit we can start getting results.

Chairman Huff summed up the conversation, it was agreed that the scientific research needs to be accelerated and that the GYIBC as a group needs to develop a prioritized list including funding and staff levels to complete the remaining management plans including the environmental compliance components.

Governor Racicot added that this is a transcendent issue throughout this country, and there is nothing he would like to solve more. He stated that if he needs to hand carry a budget to Washington he will do it. He asked that the group complete a budget in 6-8 weeks including money for research so that a budget for GYIBC efforts can be established. Bill Daniels noted that to ensure operations the GYIBC would need baseline, dependable funding. Governor Racicot answered that these were two good points and that the interior has stepped up and that 2 states have an obligation to begin funding the GYIBC at a consistent level although the states have contributed a great deal to this effort. Governor Geringer also added that within the budget there needs to be a section that outlines who is responsible for what. Department of the Interior Assistant Secretary Barry reminded the group that Assistant Secretary of the Department of Agriculture Lyons and himself are trying to get operational funding for FY 2000 as part of their budget requests.

This completed the Special Session with the Governors and the Secretary.

The Greater Yellowstone Interagency Brucellosis Executive Committee meeting began with introductions. Then Larry Ludke presented two awards to Tom Roffe from the Dept. of the Interior for his expertise in the development of management alternatives. He was presented with a cash award and a bison pin. Congratulations.

## **OLD BUSINESS**

### **Minutes**

The motion to approve the minutes was made by Arnold Gertonson and seconded by Bob Hillman, all voted in favor.

### **Yellowstone/Montana EIS**

Wayne Brewster updated the group on the Yellowstone/Montana EIS. The public comment review continues to synthesize 67,000 responses with over 200,000 individual comments. The EIS team has completed a content analysis of the comments and the agency review is expected to be completed by the end of August and a draft record of decision should be completed by next summer.

Bob Hillman asked if the group should comment on the EIS as per Governor Racicot's request. Wayne Brewster noted that the plan is in draft and that comments were made by members of the technical subcommittee and the agencies, but at that time no collective response was done by the GYIBC Executive Committee. Chairman Huff mentioned that the meeting this morning did not result in a clear consensus on if we should review documents as a group, because for many Executive Committee members there will be a conflict of interest. Assistant Secretary Barry

added that public comment is closed. Steve Lewis felt that the GYIBC could still be considered, not as part of the public.

Assistant Secretary Barry answered that based on the administrative record, GYIBC is part of the public, only agency and state partners are outside of that definition. Chairman Huff added that in the future there would be 26 more plans that will require a response. Also, when the Yellowstone/Montana ROD is in draft there will be another chance to respond. The preferred alternative was developed with representatives from the NPS, Montana, Forest Service, and APHIS, so these participating cooperators agreed to the assumptions.

Chairman Huff presided over the following motion;

For all draft management plans and environmental compliance documents that involve the management of brucellosis a collective comment from the GYIBC will be sent. Arnold Gertonson motioned to accept, and Rube Harrington seconded. Bill Daniels amended the motion to include any environmental issue that deals with brucellosis; Steve Lewis seconded this amendment. Tom Thorne mentioned that the group should add a caveat to not step on agency mandates. Wayne Brewster interjected that comments by consensus from the GYIBC would be cumbersome at best, and perhaps, in the future, when an agreement is made the GYIBC should vote to endorse it or not.

Terry Terrell noted that due to the nature of the discussion, the agenda needs to be amended to address the charges made to the group this morning.

#### **JACKSON BISON HERD MANAGEMENT PLAN**

Bill Noblit updated the group on the Jackson bison herd management plan. The judge issued a preliminary injunction and directed the federal agencies to look at elk feeding in conjunction with the bison management plan. The Dept. of Justice re-opened the bison plan and ruled to include the Forest Service even though the agency is not involved in game management, the court upheld the previous ruling. The Forest Service will appeal that the agency is not responsible for wildlife decisions. Chairman Huff added that the plan called for a hunt to control the numbers and that this is the main part of the appeal. Until now, many plans were completed for individual species in parks, so this sets a precedent to consider all impacts on all other species. It is not a good precedent for wildlife management.

DJ Shubert noted that bison hunting will not be tolerated by the Fund for Animals. Also, management plan segmentation is not acceptable, the supplementary elk feeding is creating bison problems and the court has agreed with us. Lloyd Dorsey of the Wyoming Wildlife Federation added that the bison hunting issue is a public concern that needs to be discussed. He asked if the GYIBC has developed any recommendations on the issue. Chairman Huff stated that it has not been discussed as a group. John Baughman added that currently there is litigation and it would not be appropriate to discuss.

#### **BUDGET**

Tom Thorne reminded the group about the call to action regarding the development of a budget. He added that management plans are the chief expenditure to consider in the budget. John Baughman agreed, and asked the group to take an inventory regarding funding contributions to determine what new money is needed. Chairman Huff noted that the budget matrix he had the group fill out can be used to determine needs.



Tom Thorne highlighted that Wyoming Game and Fish only has a certain number of staff. In order to do many management plans they would need to hire new employees. John Baughman added that they have 22 plans to get to draft in the next two years and that NEPA process will slow it down, the plan will be simple and straight forward like the Piney herd plan. Chairman Huff asked that they put together a schedule, complete with partners and estimated costs. Bob Hillman added that we also need to identify the short, mid and long-term goals, the costs for action. Chairman Huff felt the group could start with plans already scheduled.

Chairman Huff noted that risk cannot be simplified, it needs to be assessed for each herd and hopefully we can do so with the approval of USAHA in order to avoid sanctions. He also mentioned that in order to get a budget together the group should reconvene in 6-8 weeks. John Baughman added that the budget development should involve a combination of technical subcommittee and committee members. Jim Logan asked that everyone submit comments, priorities and a representative from each member agency. Bill Daniels asked that only 10 persons be involved for 3 days, preferably those who have worked on the budget before.

Chairman Huff thought that one person from WY and APHIS would be appropriate. Bill Noblitt stated that the Forest Service was a minor player, and Tom Thorne for Wyoming could use his spot. Bill Daniels also stated that the BLM was not needed, while Diane Katzenberger should be there for the USFWS. It was agreed that Rube Harrington, Bob Hillman, John Baughman, Jack Rhyon, Diane Katzenberger, Barry Reiswig, Tom Thorne, Skip Ladd or Bruce Smith for NER, Bob Schiller for NPS, Bill Daniels for BLM, Arnold Gertonson for Montana, and Tom Roffe for BRD would be good representatives. Carole Bolin noted that the budget is needed before three months is up to apply for FY 2001.

Tom Thorne stated that there are 22 state feed grounds and the NER, 14 elk herd units have some feed. The Wyoming Game and Fish is assigned to do the planning and deal with the grazing allotments. The Jackson herd will be the most difficult. We will do a plan for implementation and include the cost for implementation. Need to let us know about the costs for implementation, if there is federal involvement we will need to increase the costs.

## **THE BUDGET PLANNING COMMITTEE**

The committee will be headed up by Bob Hillman and it will meet the week of June 28, 1999, starting June 29 at noon, ending noon on Thursday July 1, 1999 at the BLM office in Cheyenne. Chairman Huff requested that the product be put forth for committee review by Friday, July 9th.

## **LEADERSHIP SUCCESSION**

The Nominating Committee recommended Bill Daniels for Vice Chair. The next Chairman, Bob Hillman formally introduced the next Executive Committee Secretary, Denise Walters and thanked the former Executive Secretary, Danna Kinsey. John Baughman moved to accept Bob Hillman as chair and Bill Daniels as Vice Chair, the motion was seconded by Rube Harrington, all members voted in favor of the motion. The motion carried.

## **TECHNICAL SUBCOMMITTEE REPORTS**

Bruce Lubow presented a talk about adaptive management strategies. He introduced the concept and how it could apply to control of brucellosis. The report relied on other researchers to support the findings, specifically Gross, Miller and Kreeger. Sources of uncertainty included data

mistakes, variation, noise, ignorance, and surprise. All of these factors, except mistakes can be handled through adaptive resource management techniques. There is a long history of developing scientific management techniques in the face of uncertainty. One method is to develop passive adaptive management, or learning as a byproduct of management. To do so there must be goals, data, a determined “best” model that can be implemented, monitored and revised. Also, there is the active adaptive management approach in which learning is an un-intentional management tool, this also requires goals and data, with many alternative models which specify prior probabilities, and are developed to arrive at an optimal adaptive management strategy. Implementation decisions would then be based on model weights. Management approaches include a range of all available scientific information, predicted outcomes, relevant monitoring, explicit goals, and a formal model of a systematic approach. Some misapplications include strategies, which do not achieve goals, but rather, they justify economic losses or bio-destruction for learning.

Adaptive brucellosis management steps include population and disease parameter estimation which can be entered into a modeling approach that is individual based, and spatially explicit. Variables need to be outlined and the model can be developed to measure value, costs, benefits, as well as minimize risk. Typical results are initial probing actions, management actions and the improvement of measured outputs. Applicability to the brucellosis management issue is hopeful since there are so many uncertainties, yet decisive action cannot wait for research to be complete, and we are dealing with a single unique system with no controls. The down side is the dimensionality of the uncertainties and it is politically hazardous to admit uncertainty.

Tom Thorne inquired, what if variables are incorrectly identified, how important is it to get the correct information initially? Bruce answered that the model can tell you how to react to uncertainties, if none of your variables are reliable then determine the adjustments and start modeling again, this process needs good feedback. Tom Thorne asked, can we create a detailed model without understanding issues such as non-target species? Bruce answered that there will be competing goals and decision-makers need to plan in regard to those realities.

## **SURVIVAL OF THE BRUCELLA BACTERIA**

Walt Cook, a veterinarian at the University of Wyoming presented a summary of a study on fetus longevity in the environment and the survival of the brucella bacteria. The NPS, WGF and the UW funded the study. The transmission of brucella occurs from ingestion, therefore the risk of transmission depends on how long an aborted fetus is in the field and how long the bacteria can survive. The locations for the study included the state elk feedgrounds, the NER and GTNP. The false abortions used cow fetuses and were placed in different locations and environments. The fetuses lasted:

State	42.5 hrs to 4.1 days	
NER	26.8	2.6
GRTE	56.5	5.5

They more rapidly disappeared from grasslands, forests and sagebrush, in that order. Coyotes, eagles, ravens consumed the fetuses; black billed magpies, bears, red-tailed hawks, turkey vultures, elk or bison. He documented elk contacting the fetus on the feedgrounds, including some over 100 times.

The other study element was how long did the bacteria survive in the environment. Walt put RB51 on 8 fetuses soaked in fetal fluid and placed them in wire cages in Laramie from Feb.-June. Each month he cultured the colony and took skin samples.

Jan	Bacteria lasted 60 days underneath the fetus 18 days on the exposed side
June	1/3 day 1/5 day

The UV radiation caused more of the bacteria to die off and there was a maggot factor, the more maggots there were the quicker the bacteria disappeared. The mass of the fetuses ranged from 6-50 lbs., but statistically it was not an issue, the consumption of the fetus depended on how quickly it was discovered.

### **BRUCELLOSIS MANAGEMENT PLANS**

Tom Thorne stated that the plans focus on risk of transmission from elk to cattle and elk to elk with a long-range goal of eradication. The plans will be working documents, which will address habitat issues as well as steer operations vs. cow/calf, haystacks and leasees. He will report back on the progress at the next meeting

### **YELLOWSTONE TEST RESULTS**

Mike Philo presented the samples from bison sent to slaughter. There are now 185 bison culture results complete with serology. A summary paper can now be done and most of the technical subcommittee agreed that John Gross needs more data on older animals, over 6 years old. We will continue to get that data for his model and it can help to draw more accurate conclusions. Culturing in the future will include samples from the placenta as well as amniotic fluids. The complete results will be presented at the next meeting.

DJ Shubert commented that he supports the detailed data gathering if the animals are continuing to die, that way they will not die in vain.

### **CALFHOOD VACCINATION SAFETY & EFFICACY**

Jack Rhyan updated the group on the Triple U study, done by Steve Olsen and Carole Bolin has shown that there are no problems with calfhood vaccinations and by 2000 we hope to have a safe vaccine level for bison with no reproductive consequences. Two small studies have been conducted using 9 animals and 2 controls; it appears to be efficacious, although the data is insufficient. Also the three studies on vaccination for a period of three calving seasons should satisfy the need for efficacy and the non-target safety issue has been avoided through the use of oral administration. Study on bulls is ongoing; no study has been conducted for grizzly bears and wolves because of their endangered status, although we are checking reproduction of coyotes as surrogate for wolves. Tom Thorne stated that only morbidity and mortality were determined not reproduction. Chairman Huff added that in order to define safety, research needs to deal with reproduction.

Jim Logan expressed concern that field strain *Brucella abortus* is already present, why are we worried about non-target exposure to vaccines if we aren't concerned about non-target exposure to field strains?

Chairman Huff added that there is still field strain out there and our goal is to get rid of it. Jack Rhyan also mentioned that in the lemming study field strain proved to be lethal while RB51 does not cause any problems in these very sensitive animals.

### **SUBCOMMITTEE ELECTION**

Terry Kreeger was elected as the next Technical Subcommittee chair and the Vice Chair will be Wayne Brewster. Steve Lewis moved to accept the results of the election, Bill Daniels seconded the motion, all committee members approved.

DJ Shubert reminded the committee that the public has not been consulted regarding the use of vaccines. Chairman Huff responded that every alternative in the Yellowstone/Montana EIS uses vaccine as part of the effort to control brucellosis once a safe and effective vaccine is developed, along with an acceptable delivery system.

Chairman Huff asked for resolution on this issue so individual agencies can use the vaccines. He moved to ask the technical subcommittee to develop a consensus on the use of safe and efficacious vaccines, Bill Daniels seconded, all committee members were in favor, the motion passed.

### **I & E SUBCOMMITTEE REPORT**

Diane Katzenberger presented the latest version of the newsletter and its content. The color mock-ups were lost. The subcommittee agreed on a three column, two color newsletter which will cost \$1700.00 for 400 copies. Each agency would be responsible to buy and mail the newsletter. The Dept. of the Interior, Dept. of Agriculture and the states will review the articles. Following the content review the newsletter will be sent to the subcommittee for review, then to the executive committee for approval. Reviewers are Wayne Brewster for the Interior, Tom Thorne for Wyoming, John Chatburn for Idaho, Tom Linfield for Montana and Jack Rhyan for Agriculture. We will have a mock up to you within the next couple of weeks by June 4th, and the review will be due by June 18th.

Tom Thorne added that each agency needs to pay for a certain number of newsletters and all agencies need to bring in a mailing list. Tom Bills will put it on the web page. The number to be ordered will be determined in two weeks.

### **SUBCOMMITTEE ELECTION**

The new chair of the I&E Subcommittee will be Tom Thorne and the Vice Chair will be Tom Bills. The motion to accept Jim Logan, seconded by Arnold Gertonson, all members, made the election approved.

### **NEXT MEETING**

The next meeting will be in Idaho Falls, August 31-September 2, 1999 and the January 2000 meeting will be held in Bozeman, Montana from the 25th-27th.

Tom Thorne mentioned that the Secretary and the Governors want the plan in hand and we can do it through conference calls. Chairman Huff inquired when can the plan be completed with a letter

of transmittal in order to separate items for FY 2001. Larry Ludke thought that it should be completed by July 10. Larry Ludke reminded everyone that there are three categories of unfunded needs, planning compliance, running the group, and implementation.

## **PUBLIC COMMENT**

Lloyd Dorsey of the Wyoming Wildlife Federation addressed the group and said that he understood that some sort of brucellosis vaccination rules were passed, and asked that Dr. Jim Logan address this issue. It appears that most of the vaccination criteria has to do with transfer and shipment to slaughter, but if a livestock producer keeps heifers on Bureau of Land Management or Forest Service land they are not required to vaccinate the cattle. Bill Noblitt responded that only the state has the authority to require vaccinations, however, the federal agency could recommend vaccinations. Jim Logan answered that the vaccination rules were operational and the WLSB did not want to single out an area but wanted a statewide vaccination program.

Bob Hillman moved that the GYIBC go on record as recommending that all vaccination eligible cattle, grazing in the GYA, be calfhood vaccinated with RB51. Jim Logan seconded the motion, and all approved after discussion.

DJ Shubert stated that it was shameful that the decision-makers did not open things up for public discussion. The American public does not approve of any of the methods required by the interim bison plan. What will be done in the interim since the scientific research will take years to complete. We suggest changing in the Forest Service grazing allotments and humane bison management. Are you familiar with the 4 bison that died in a trap or those injured during transport that had to be slaughtered, is it acceptable? Instead of capturing and taking bison to slaughter, please shoot the animals rather than transport them. The plan needs to be re-evaluated since it is inhumane.

Rob Hendry of the Wyoming Stockgrowers said that ranchers are paid for selling cattle, if those cattle are exposed to brucellosis, that is my pocket book, if this committee drags its feet, the disease won't be out of the GYA until 2050. Yellowstone has no feed, there is nothing for the animals to eat, they suffer a slow, starvation death. The public only gets one side of the story. Also, Wyoming cattle should be vaccinated on federal lands, if anyone is dumb enough not to vaccinate in a bangs infected area. APHIS wiped out brucellosis in the whole United States and bison are vaccinated in several parks and in private herds, Yellowstone should just do it. Tom Thorne added that the GYA is the last spot for brucella abortus in the United States, and that there is no evidence of it elsewhere. There is brucella suis in southeastern United States.

Dale Hensil of the National Bison Association is a bison rancher and mentioned that it is important to educate the public. The problems surrounding brucellosis have warranted the wrong publicity, only one side of the story is being told. Perhaps one issue of the newsletter could be focused on education so that cattlemen from Nebraska and Kentucky are not so nervous about getting their cattle near bison, since there are 1/4 million bison currently being raised for meat production in the United States.

Steve Torbit from the National Wildlife Federation remarked that from his perspective we are tearing ourselves apart, we need to stop the rhetoric and cooperate. Vaccination of cattle should be paid for and we recognize that brucellosis is a bad problem. The buffalo are sick, however, I don't think 50% are contagious, but it is the last reservoir in the United States. Yet we do not hear

the entire story, no cattle that have traces of antibiotics are allowed in Europe, brucellosis is only one part of the trade problem. Also there needs to be discussion and development of management plans, Wyoming should not be the only state involved, Idaho and Montana also need to work on management plans. Elk need to be part of the discussion, and it should be recognized that brucellosis is not Wyoming's problem, state and agency leaders ought to be informed and involved in this issue. We need to stop the poor rhetoric.

Chairman Huff asked for the members of the executive committee to review the risk analysis for Parks Canada in a couple of weeks.

Chairman Huff then thanked everyone for coming and mentioned that although this was his last meeting as the chairman he looks forward to continue collegial involvement with the GYIBC. The meeting was adjourned at 6:30 p.m. Bob Hillman motioned and seconded the motion.

Respectfully submitted by Danna Nicole Kinsey, GYIBC Executive Committee Secretary.